NWAL

Release Notes

Applies to Product Release: 02.01.00.13
Publication Date: September 23, 2019

TEXAS INSTRUMENTS

Texas Instruments, Incorporated
20450 Century Boulevard
Germantown, MD 20874 USA

Contents

NWAL version 02.01.00.13

Overview

This document provides the release information for the latest Network Adaptation Layer (NWAL) Driver which could be used by applications interfacing with NetCP module in Keystone devices.

NWAL module release includes:
- Compiled library (Big and Little) Endian with and without Security Accelerator (SA) LLD support. Device specific libraries are being provided for Keystone-2 devices.
- Source code.
- API reference guide

Dependent Components

- PDK components released in MCSDK package
- Code Generation Tool Chain 7.4.2 or higher for C66x
- SA LLD 3.0.0.5 for KeyStone-2
- SA LLD 1.0.5 for KeyStone-1
- Linaro: GCC 4.7 tool chain version 2013.03

LLD Dependencies

LLD is dependent on following external components delivered in MCSDK package:
- PDK
- SA LLLD
- HPLIB (ARM only)

New/Updated Features and Quality

Release 2.1.0.13

IR Fixes

Release 2.1.0.12

IR Fixes

Release 2.1.0.11

IR Fixes

Release 2.1.0.10

Fix liner options for ARM unit test, cleanup

Release 2.1.0.9

IR fixes, support for device specific Keystone2 libraries.

Release 2.1.0.8

Updating API to enable/disable NATT detector in PDSP3, allow LUT rule for ingress offloaded tunnel that is NATT encapsulated to have don't care for IP src/dst address and protocol. (so it ends up being SPI only) , allow same tunnel LUT rule in (a) to be linked to an earlier PDSP-1 IP LUT rule (previously only link to PDSP0 Mac LUT rule was allowed);

Release 2.1.0.7

- o Resolve compiler warning when build nwal libraries observed with "-Wall -Wextra -Werror" options
- o Linux unitTest connects to new RM Server socket interface

Release 2.1.0.6

- o Update makefiles for parallel build issue.

Release 2.1.0.5

- o Updates to sync with latest version of PA-LLD.

Release 2.1.0.4

- o New API to support EMAC Port Configuration of PA's Enhanced QOS mode and Ingress Default Route operations. Refer to ReleaseNotes_PA_LLD.pdf (ti/drv/pa/docs) for details of these operations.
- o Resolve Coverity warnings, cleanup.

Release 2.1.0.3

- NWAL library updates for multi-process ARM use case.
- Control API for EMAC Port global configuration at NetCP for Enhanced QOS Mode.

Release 2.1.0.2

- IR fixes.

Release 2.1.0.1

- This release supports all keystone2 devices. In addition to supporting Kepler(k2k) and Hawking(k2h) this release also supports Lamarr(k2l) and Edision(k2e) devices. One change from previous releases is that device specific nwal libraries are now being provided as part of the release.
- NWAL integration with latest version of HPLIB (ARM only)

Release 2.0.0.14

- Support for Interface based and priority based routing. This allows setting of routes based on Ethernet port, DSCP/TOS and VLAN priority bits.
- Support to allow configuration of MAC and IP level routes based on source and/or destination addresses.

Release 2.0.0.13

- Updates to ARM makefiles to enable delivery of NWAL shared object libraries.
- NWAL integration with latest version of HPLIB (ARM only)
- NWAL package modifications to support KeyStone-1 devices

Release 2.0.0.12

- NWAL integration with HPLIB (ARM only)
- Added new API to retrieve local channel context information (nwal_getChanCtxInfo)
- NWAL changes to support multi-process PA/SA sub-systems
- Updates to ARM makefiles to enable optimization

Release 2.0.0.11

- Updated to build process for yocto build environment
- Updates to nwalTest application for multi-thread/multi-core ARM use case.

Release 2.0.0.10

- o Updated the nwal-lld build infrastructure to align for yocto
- o Updates for nwal unit test application for multi-thread/core.

Release 2.0.0.9

- o Verified on K2H platform. First release of NWAL in MCSDK release

Resolved Incident Reports (IR)

Table 1 provides information on IR resolutions incorporated into this release.

Table 1   Resolved IRs for this Release

IR Parent/ Child Number	Severity Level	IR Description
CATREQ-2796	S3-MINOR	Descope of big-endian version of C66 and C674x drivers

Known Issues/Limitations

IR Parent/ Child Number	Severity Level	IR Description
SDOCM00103852	S3-MINOR	nwalUnitTestK2HTestProject fails when run using the simulator for LE and BE

Licensing

Please refer to the software Manifest document for the details.
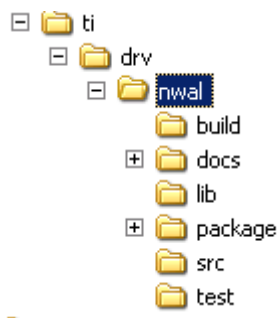
Delivery Package

Package is delivered as tar ball.

Installation Instructions

Extract the tarball package to a destination directory

Directory structure

Following is the directory structure after NWAL package has been installed:

The following table explains each individual directory:

Directory Name	Description
ti/drv/nwal	The top level directory contains the following:- 1. _Environment configuration batch file_ The file "setupenv.bat" is used to configure the build environment for NWAL driver. 2. _makefile_ Top level makefile to support rebuilding NWAL library 3. _XDC Packaging meta files_ Files to retrieve NWAL library from a RTSC based application 4. _Exported Driver header file_ Header files which are provided by NWAL driver and should be used by the application developers for driver customization and usage.
ti/drv/nwal/build	The directory contains internal XDC build related files which was used to create NWAL driver package.
ti/drv/nwal/docs	The directory contains the NWAL API doxygen documentation.
ti/drv/nwal/lib	Pre-built Big and Little Endian device specific libraries for the driver along with their _code/data size information_.
ti/drv/nwal/package	Internal driver package files.
ti/drv/nwal/src	Source code for the driver.

Customer Documentation List

Table 2 lists the documents that are accessible through the **/docs** folder on the product installation CD or in the delivery package.

Table 2   Product Documentation included with this Release

Document #	Document Title	File Name

Document #	Document Title	File Name
1	API documentation (generated by Doxygen)	docs/ nwal_docs.chm
2	NWAL Module User Guide	docs/UserGuide_NWAL.pdf
3	Software Manifest	docs/NWAL_SoftwareManifest.pdf
4	Release Note	docs/ ReleaseNotes_NWAL.pdf